Vinotemp®

WINE-MATE Cooling Unit

Service Manual

VINO-1500HZD
VINO-2500HZD

Vinotemp International Inc.

www.vinotemp.com
www.winemate.com

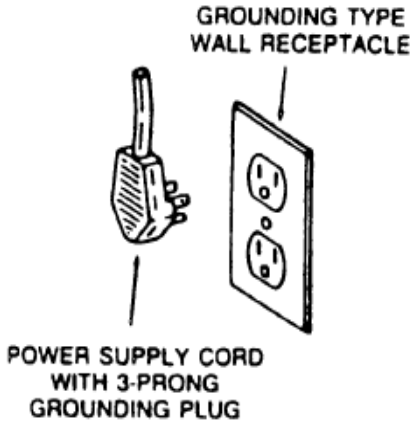
READ AND SAVE THESE INSTRUCTIONS

SAFETY INFORMATION

⚠ WARNING

To avoid the risk of electrical shock, property damage, personal injury or death:

- The power cord must be plugged into a 3-prong grounding-type wall receptacle, grounded in accordance with the National Electrical Code, ANSI/NFPA 70 - latest edition and local codes and ordinances.
- It is the personal responsibility of the consumer to have a proper 3-prong wall receptacle installed by a qualified electrician.
- DO NOT, UNDER ANY CIRCUMSTANCES, REMOVE THE POWER CORD GROUNDING PRONG.
- A separate adequately fused and grounded circuit should be available for this appliance.
- Do not remove any grounding wires from individual components while servicing, unless the component is to be removed and replaced. *It is extremely* important to replace all grounding wires when components are replaced.



⚠ WARNING

ELECTRIC SHOCK HAZARD

Disconnect electric supply from appliance before servicing.

Replace all panels before operating.

Failure to do so could result in death or electrical shock.

TABLE OF CONTENTS

1. Introduction……..3
- **I. Goals and Objectives……3**
- **II. R134a Refrigerant Service Information……3**

2. Component Information and Access……5
- **I. Model and Serial Label Location……5**
- **II. Component Access……6**
  - **1) Removing the Outer Cover……6**
  - **2) Removing the Inner Styrofoam Cover……6**
  - **3) Removing the Fan Plate……8**
  - **4) Removing the Electronic Controller……9**
  - **5) Removing the Thermistor……9**
  - **6) Removing Fan Motors……10**
  - **7) Removing the Start Relay and Overload Protector ……10**
  - **8) Removing the Compressor……11**
  - **9) Removing the Condenser……12**
  - **10)Removing the Evaporator……12**

3. Servicing and Diagnosis……13
- **I. Identifying Component Problems……13**
  - **1) Terminal Block……13**
  - **2) Compressor……14**
  - **3) Start Relay……15**
  - **4) Overload Protector……16**
  - **5) Electronic Controller……16**
  - **6) Thermistor……17**
  - **7) Fan Motors……17**
- **II. Wiring Diagram……18**
- **III. Troubleshooting Chart……19**

4. Customer Support……24

5. Warranty Information……25
- **I. Limited Warranty ……25**
- **II. Limitation of Implied Warranty……26**

1. Introduction

VINOTEMP assumes no responsibility for any repairs made on products by anyone other than authorized service technician

This manual has been prepared to provide the information on installing, servicing, troubleshooting and repairing procedures for the WINE-MATE VINO1500HZD & 2500 HZD cooling units.

I. Goals and Objectives

The goal of this manual is to provide detailed information that will enable the service personnel to properly install and repair the cooling unit, and troubleshoot and diagnose malfunctions.

The objectives of this manual are that the service personnel will

- Fully understand the proper safety precautions
- Successfully install the cooling unit
- Successfully troubleshoot and diagnose malfunctions
- Successfully perform necessary repairs
- Successfully return the cooling unit to proper operational status

II. R134a Refrigerant Service Information

This cooling unit uses R134a refrigerant. This refrigerant requires synthetic ester oil in the compressor. This cooling system does not tolerate contamination from any of the following:

- Other refrigerants
- Moisture
- Petroleum-based lubricants
- Silicone lubricants
- Cleaning components
- Rust inhibitors
- Leak detection dyes
- Any other types of additive

As a result, the following precautions shall be observed:

- Use equipment dedicated to R134a sealed system only.
- Use R134a refrigerant for back-flushing.

- Use dry nitrogen to purge the system.
- Do not overcharge the refrigeration system.
- Do not leave replacement compressor open to the atmosphere for more than 10 minutes.
- Do not operate the compressor without refrigerant charge in the system.
- Do not use the compressor if the rubber plugs on the replacement compressor appear to have been tampered or removed.
- Always replace the filter-drier when performing any repairs on the sealed system.
- The filter-drier must be cut from the sealed system. Never unbraze the filter-drier from system tubing. Applying heat will drive moisture back into sealed system.

Table 1-1 Health and Safety Handling of R134a

Allowable Overall Exposure Limit	1,000 ppm
Vapor Exposure to Skin	No Effect
Liquid Exposure to Skin	Can cause frostbite
Vapor Exposure to Eyes	Can cause very slight irritation
Liquid Exposure to Eyes	Can cause frostbite
Above Minimum Exposure Limit	Can cause asphyxiation, tachycardia and cardiac arrhythmia's. Wear appropriate skin and eye care.
Spill Management	Combustible sources. Evacuate or ventilate area. May decompose if in contact.
Fire and Explosion Hazards	Made with flames and heating elements. Container may explode if heated due to pressure rise. Combustion products are toxic.
Storage Conditions	The procedures/rules for R12 also apply to R134a. Reclaim

2. Component Information and Access

⚠ WARNING

ELECTRIC SHOCK HAZARD

Disconnect the electrical power before servicing any components.
Failure to do so can result in death or electrical shock.

This section provides you the component information and access inside the cooling unit. The components and their locations are shown Figures 2-1 through 2-11 below.

I. Model Number & Serial Label and Component Locations

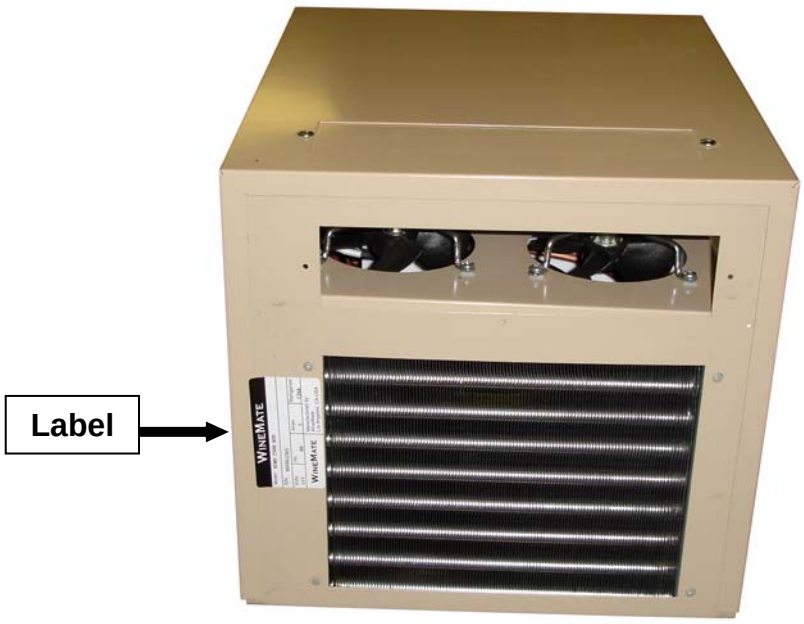


Figure 2-1

II. Component Access

1) Removing the Outer Cover

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure.
3. To remove the outer cover, remove all screws from each side and on the top.

Figure 2-2

2) Removing the Inner Styrofoam Covers

Once the outer cover is removed, this will expose the inner styrofams. The top large Styrofoam cover seals off the condenser and evaporator fan compartments. To gain access to the other components, the styrofoam covers will need to be removed**.** To separate the top styrofoam covers, a knife can be used to cut along the seam and through the seal. Take care as not to damage any wiring or the styrofoam pieces.

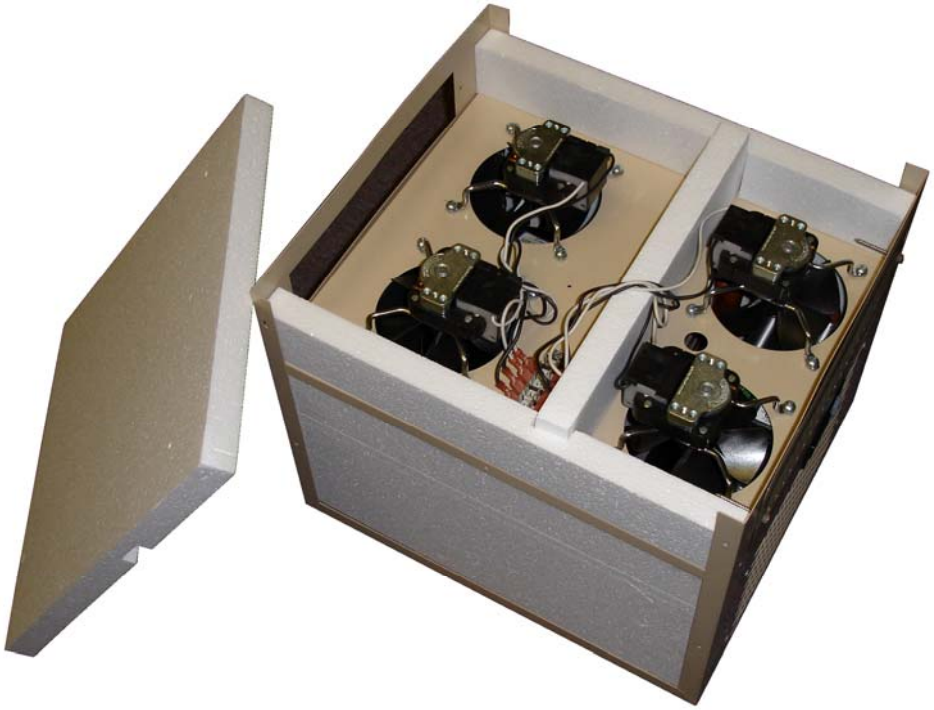


Figure 2-3

Figure 2-4

3) Removing the Fan Plate

1. Disconnect the power cord and compressor cord wires from the terminal block.
2. Remove the 4 rivets to remove the fan plate.

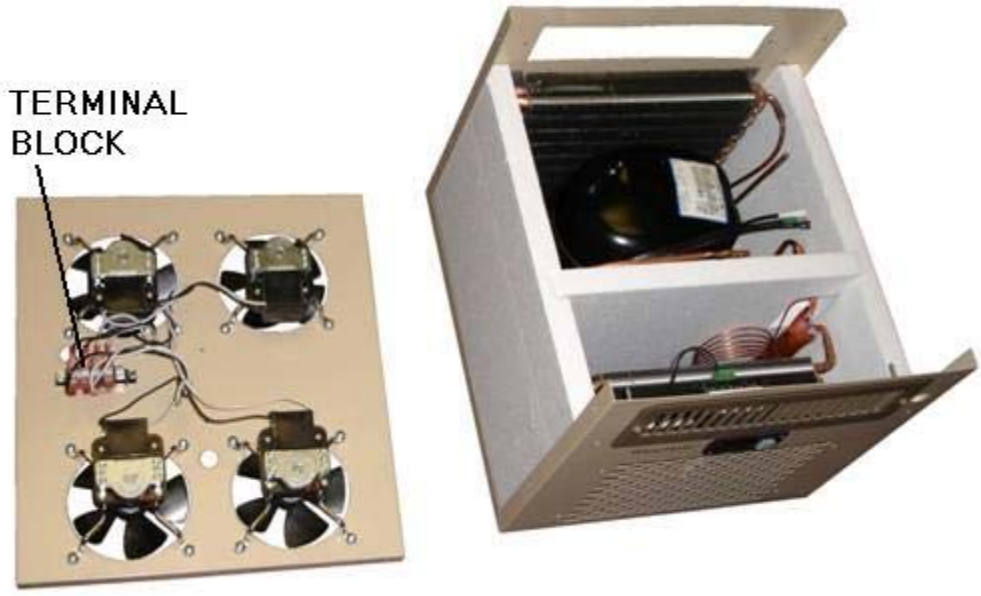


Figure 2-5

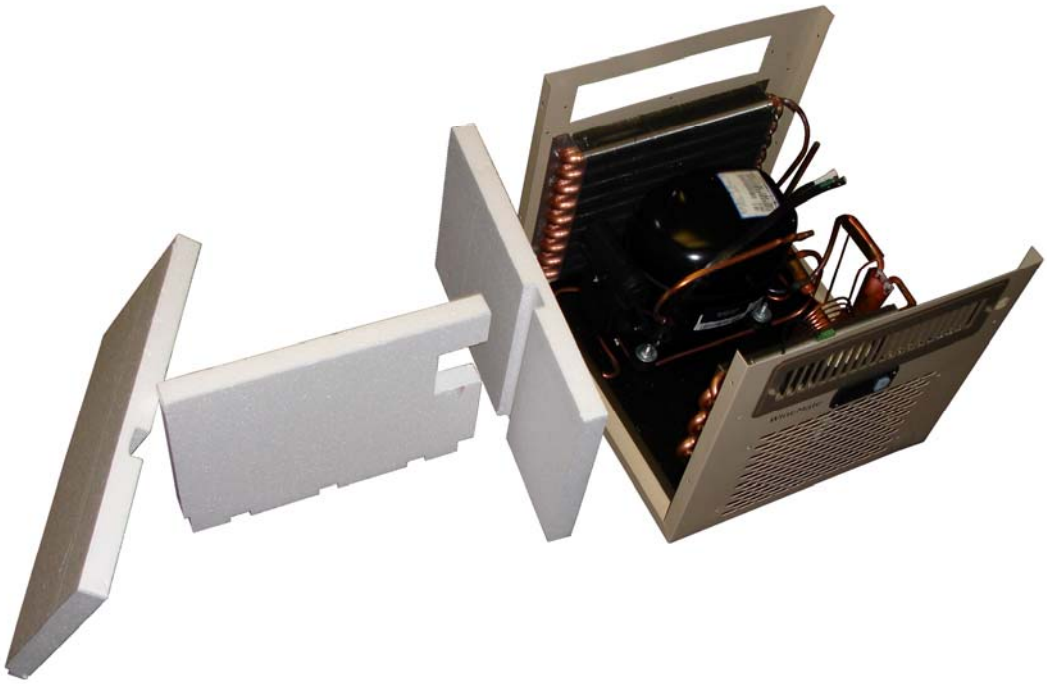


Figure 2-6

4) Removing the Electronic Controller

Figure 2-7

Figure 2-8

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove WINEMATE cooling unit from the enclosure.
3. Remove the top large styrofoam cover.
4. Disconnect all three connectors for the electronic controller.
5. Unsnap the thin plastic cover off the front of the electronic controller.
6. Remove the two screws from the front of the electronic controller.
7. Locate the retainer just inside the front panel going around the outside of the electronic controller. While squeezing both tabs of the retainer, push the electronic controller out of the opening.

5) Removing the Thermistor

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure opening.
3. Remove the outer cover.
4. Remove the top large styrofoam cover.
5. Disconnect the thermistor with connector from the electronic controller.

6. Remove the thermistor from the mounting clip on the front of the evaporator.

6) Removing Fan Motors

Figure 2-9

The 4 fan motors are attached to the horizontal fan plate. The 4 fan motors are the same and are all powered up at the same time.

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure opening.
3. Remove the outer cover.
4. Remove the large styrofoam cover.
5. Disconnect the two wires going to the electrical junction block.
6. Remove the four screws holding the fan to the plate.

7) Removing the Start Relay and Overload Protector

Figure 2-10

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure opening.
3. Remove the outer cover.
4. Remove the top large styrofoam cover.
5. Remove the terminal cover from the compressor.
6. Remove the start relay by pulling straight out away from the compressor terminal.
7. Remove the overload protector by pulling straight out away from the compressor terminal.

8) Removing the Compressor

Figure 2-11

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure opening.
3. Remove the outer cover.
4. Remove the top and bottom styrofoam covers and the fan plate.
5. Place piercing valves onto the process tubes and discharge the refrigerant into an approved R134a recovery system.
6. Use a tubing cutter to remove the suction line and discharge line from the compressor.
7. Remove 4 nuts (11mm) from the feet of the compressor.
8. Remove the compressor

Note: Any time the sealed system is accessed the filter-drier must be replaced. It is best to cut the drier out of the system, then braze on a new one.

9) Removing the Condenser

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure opening.
3. Remove the outer cover.
4. Remove the top large styrofoam cover and the inner divider.
5. Place piercing valves onto the process tubes and discharge the refrigerant into an approved R134a recovery system.
6. Use a tubing cutter to remove the hot gas line and liquid line from the condenser.
7. Remove 4 rivets from the condenser.
8. Remove the condenser

10) Removing the Evaporator

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the WINEMATE cooling unit from the enclosure opening.
3. Remove the outer cover.
4. Remove the top large styrofoam cover and the inner divider.
5. Place piercing valves onto the process tubes and discharge the refrigerant into an approved R134a recovery system.
6. Cut the capillary line and suction line from the evaporator.
7. Remove 4 rivets from the evaporator.
8. Remove the evaporator.

3. Servicing and Diagnosis

⚠ WARNING

Always check wiring harness connections before initiating any test procedures.

Disconnect electric power from the appliance before performing any maintenance or repairs.

Voltage checks should be made by inserting meter probes beside the wires in the connector blocks with the electric power source on and the connector block plugged in.

Resistance checks should be made on components with the electric power off and the connector block disconnected.

This section instructs you how to service each component inside the cooling unit.

I. Component Checking

1) Terminal Block

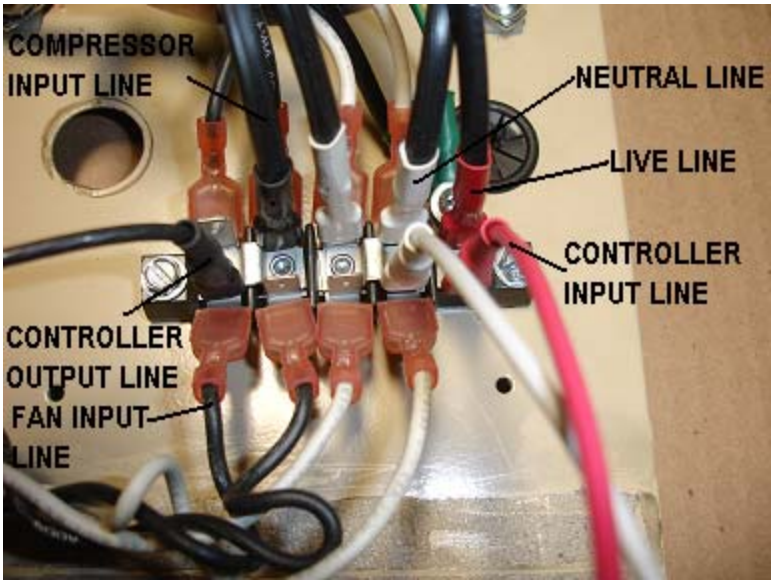


Figure 3-1A (3 button controller)

A. Live Line (115VAC/60Hz): red shrunk wire from the power line;
B. Neutral Line: white shrunk wire from the power line;
C. Compressor Wires: black shrunk wire from the compressor terminal connecting the black wire from the controller compressor output; white shrunk wire from the compressor terminal connecting the neutral line;

D. Fan Wires: black shrunk wire from the fan terminal connecting the black wire from the controller compressor output; white shrunk wire from fan terminal connecting the neutral line;

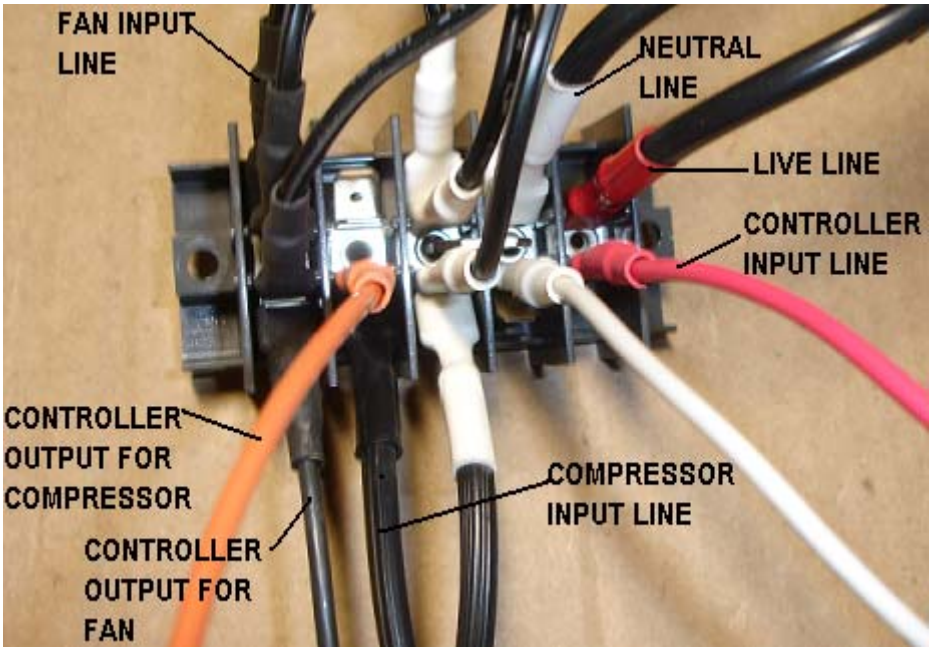
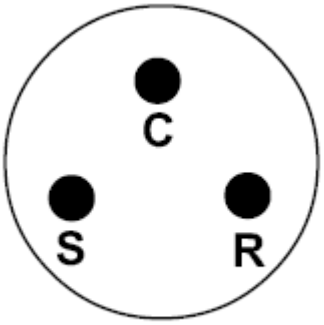


Figure 3-1B (5 button controller)

A. Live Line (115VAC/60Hz): red shrunk wire from the power line
B. Neutral Line: white shrunk wire from the power line;
C. Compressor Wires: black shrunk wire from the compressor terminal connecting the orange wire from the controller compressor output; white shrunk wire from the compressor terminal connecting the neutral line;
D. Fan Wires: black shrunk wire from the fan terminal connecting the black wire from the controller fan output; white shrunk wire from the fan terminal connecting the neutral line;

2) Compressor

The compressor acts as a pump, forcing refrigerant through the sealed system.



Pin Configuation

Figure 3-2

A. Resistance

1. Unplug WINEMATE cooling unit or disconnect power.
2. Remove the terminal cover from the compressor.
3. Remove the start relay and overload protector from the compressor. If wiring is removed from the start relay and/or overload protector, carefully label each wire according to its proper location.
4. Set the ohmmeter scale to the lowest setting.
5. Touch and hold one ohmmeter probe to the C (common) terminal, then touch and hold the other probe to the R (Run) terminal. The ohmmeter shall show a reading of 2.5Ω. If not, the compressor is bad.
6. Touch and hold one ohmmeter probe to the C terminal, then touch and hold the other probe to the S (Start) terminal. The ohmmeter shall show a reading of 11-13Ω. If not, the compressor is bad.
7. Touch and hold one ohmmeter probe to the R terminal, then touch and hold the other probe to the S terminal. The ohmmeter shall show a reading of 13.5-15.5Ω. If not, the compressor is bad.
8. Touch and hold one ohmmeter probe to the C, or R or S terminal, then touch and hold the other probe to the ground on the compressor. The ohmmeter shall read infinity. Any resistance indicates a shorted compressor.
9. If the compressor tests ok, but does not start, check start relay, overload protector and live voltage.

B. Live Voltage

1. Unplug WINEMATE cooling unit or disconnect power.
2. Remove the terminal cover from the compressor
3. The WINEMATE unit needs to be plugged in and turned on.
4. Locate the terminals on the start relay and the overload protector.
5. Set the voltmeter to the AC 200 scale.
6. Touch and hold one voltmeter probe to the terminal on the start relay, then touch and hold the other probe to the terminal on the overload protector.
7. The voltmeter shall show a reading of 115 volts.
8. If the test is good and the compressor does not start, check the start relay, overload protector, and measure the resistance.

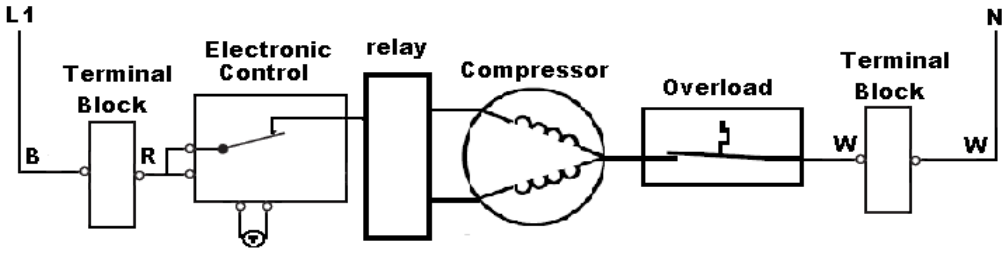


Figure 3-3

3) Start Relay

A start relay's function is to energize and de-energize the compressor's start winding. The coil of the current type relay is connected in series with the run winding. When current flows through the coil, a magnetic force is produced, pulling the relay plunger up. With the relay plunger up, it connect the start winding and the run winding at the same time and the compressor starts. As the compressor reaches its running speed, there is not enough current flowing through the relay coil to keep the plunger up (because of gravity), the start winding is disconnected.

1. Unplug the WINEMATE cooling unit or disconnect power.
2. Remove the terminal cover from the compressor.
3. Disconnect and remove the relay.
4. Set the ohmmeter scale to the lowest setting.
5. Make sure the relay with the letters "TOP" facing up.
6. Place and hold one ohmmeter probe in one terminal, then place the other ohmmeter probe into the other terminal. The ohmmeter shall show an open circuit. If not, the start relay is bad and needs replacing.
7. Turn the relay upside down.
8. Place and hold the ohmmeter probe in one terminal, and place the other ohmmeter probe in the other terminal. The ohmmeter shall show zero resistance. If not, the start relay is bad and needs replacing.
9. If the start relay is good, reinstall and reconnect the relay with the letters "TOP" facing up.

4) Overload Protector

The overload protector is a bi-metal that protects the compressor. If the compressor gets too hot the overload protector opens and stops the compressor. Once it has cooled the overload protector contacts close.

1. Unplug WINEMATE cooling unit or disconnect power.
2. Remove the terminal cover from the compressor.
3. Disconnect and remove the overload protector
4. Set the ohmmeter scale to the lowest setting.
5. Touch and hold one ohmmeter probe to one terminal on the overload protector, then touch and hold the other probe to the other terminal.
6. The ohmmeter shall show a reading of zero resistance. If not, the overload protector needs replacing.
7. Reinstall and reconnect the overload protector.

5) Electronic Controller

The electronic controller allows the customer to select a temperature form 50 °F to 65 °F. When the thermistor senses a temperature above the setting value, the

electronic controller will turn on the compressor and fan motors. Once the selected temperature is sensed, the controller will turn off the cooling unit.

A. Resistance

1. Unplug WINEMATE cooling unit or disconnect power.
2. Disconnect the connector with the red and white wires connected to the input of the electronic controller.
3. Touch and hold one ohmmeter probe to one terminal on the electronic controller, then touch and hold the other probe to the other terminal.
4. The ohmmeter shall show a reading of 825Ω ± 10%.
5. Reconnect the wire connector to the electronic controller.

B. Input Live Voltage

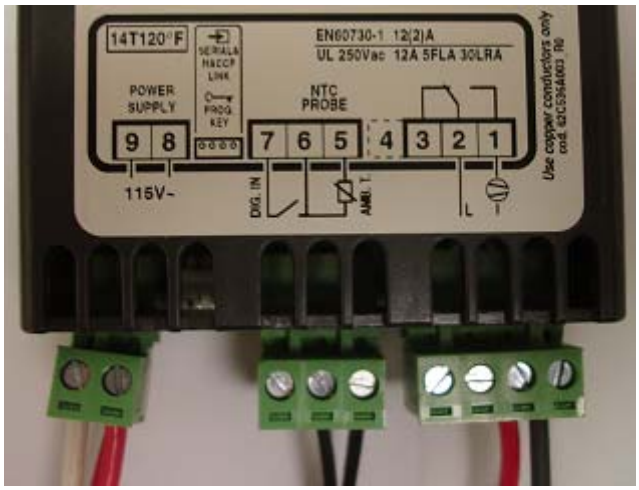


Figure 3-4A (3 button controller)

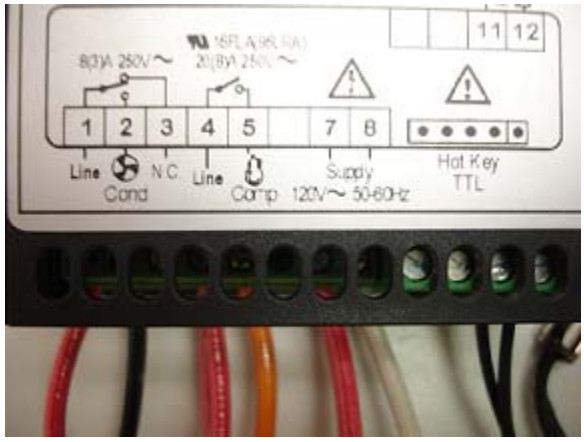


Figure 3-4B (5 button controller)

1. The WINEMATE unit needs to be plugged in.
2. Locate the red and white wires going to the electronic controller.

3. Set the voltmeter to the AC 200 scale.
4. Touch and hold one voltmeter probe to one of the wire terminals, then touch and hold the other probe to the other wire terminal
5. The voltmeter shall show a reading of 115 volts.

C. Output Live Voltage

1. In order to test the output of the electronic controller, the WINEMATE cooling unit must be plugged in and powered up.
2. The input voltage must read at least 115 volts.
3. Set the temperature 5° F above the ambient temperature.
4. Set the voltmeter to the AC 200 scale, and the voltmeter shall read 0 volts.
5. Now warm the thermistor by hands for a while.
6. Locate the black and white wires leaving from the electronic controller.
7. Touch and hold one voltmeter probe to the black wire, then touch the other probe to the white wire.
8. Now the voltmeter shall read 115 volts.
9. If the readings are both correct the electronic controller is good.

6) Thermistor

1. Disconnect the thermistor connector from the electronic controller.
2. Set ohmmeter to the R x 10K scale.
3. Immerse the tip of the thermistor into ice water for five minutes
4. Touch the ohmmeter probes to the wire terminals on the connector. The meter shall indicate 27 ± 10%.
5. Reconnect the thermistor.

7) Fan Motors

The WINEMATE 1500 & 2500 uses four fan motors to pull air across the condenser and evaporator coils. The safest way to check one of the motors is doing a resistance check. An alternate method is checking with live voltage.

A. Resistance

1. Unplug WINEMATE cooling unit or disconnect power.
2. Disconnect the fan motor wiring from the terminal block, remove one wire at a time, and carefully label each wire.
3. Set the ohmmeter scale to the lowest setting. Touch and hold one ohmmeter probe to one of the wire terminals, then touch and hold the other probe to the other wire.
4. The ohmmeter shall show a reading of 50 ohms ± 10%.
5. Reconnect the wires to the proper terminals as previously marked.

B. Live voltage

1. The WINEMATE unit needs to be plugged in and turned on.
2. Locate the black and white wires from the fan motor being tested and follow them back to the terminal block.
3. Set the voltmeter to the AC 200 scale.
4. Touch and hold one voltmeter probe to one of the wire terminals, then touch and hold the other probe to the other wire.
5. The voltmeter shall show a reading of 115 volts.

II. Wiring Diagram

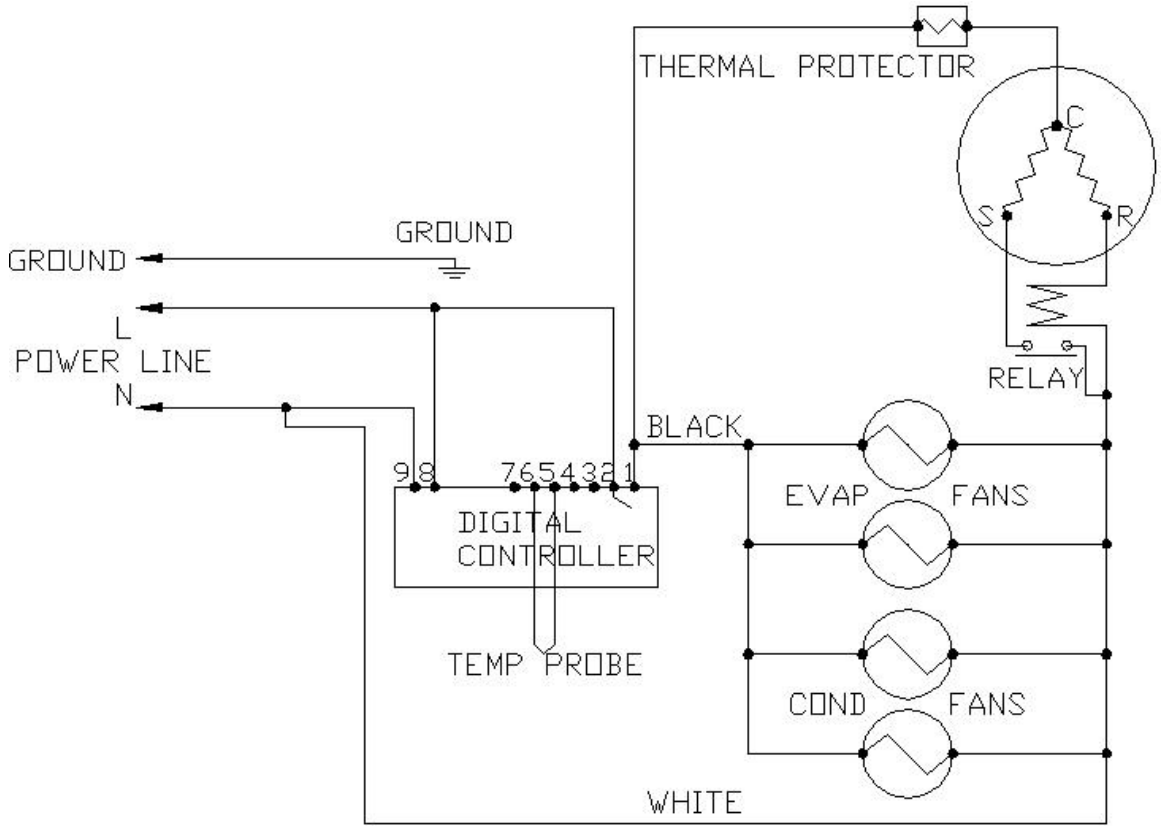


Figure 3-5A (3 button controller)

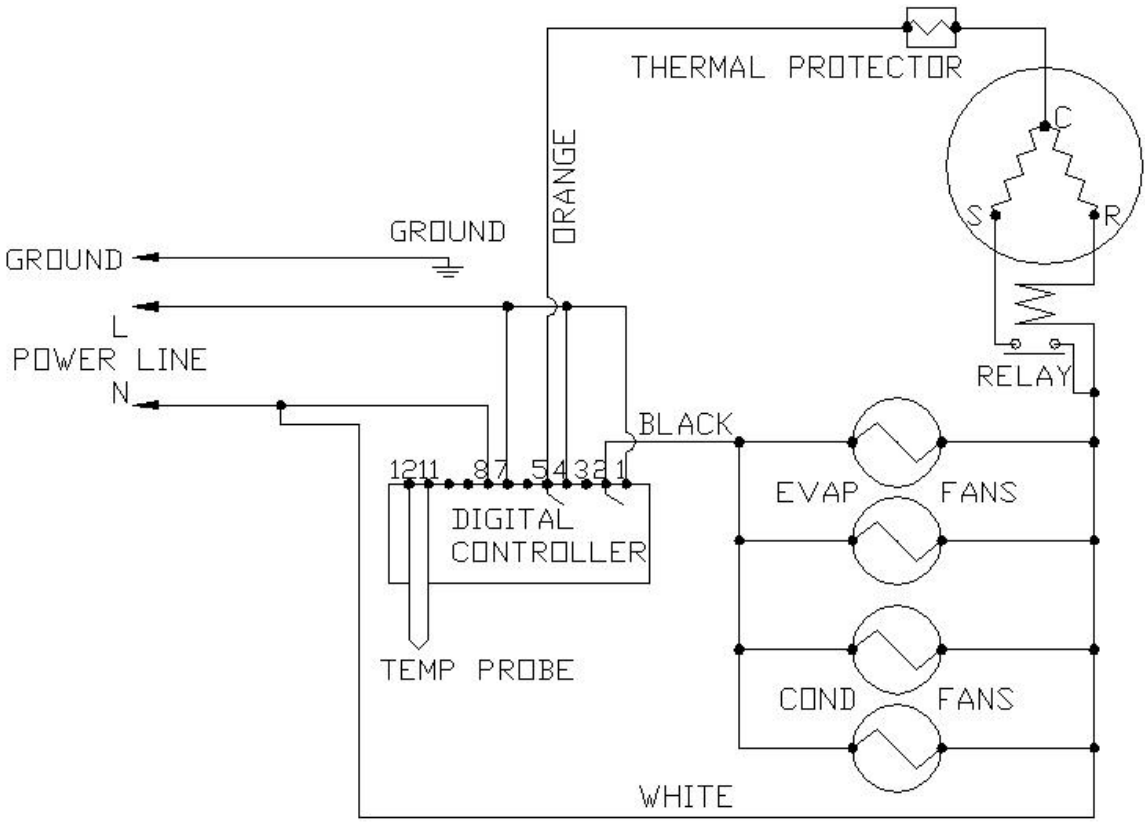


Figure 3-5B (5 button controller)

III. Troubleshooting Chart

This Troubleshooting Chart is not prepared to replace the training required for a professional refrigeration service person, not is it comprehensive.

Table 3-1 Troubleshooting Chart

Complaint	Possible Causes	Response
1. Unit not running	a. Power cord not plugged b. No power from supply c. Incorrect or loose wirings d. Low voltage e. Setting higher than ambient temperature f. Cut-in too high g. Defrost light blinking h. Compressor light blinking i. Defective controller	a. Check power cord b. Check receptacle and fuses c. Check all wirings and connections d. Contact an authorized electrician e. Lower temperature setting f. Reduce Hy g. Unit is under defrost mode h. Unit is under anti-short cycle delay i. Call service for diagnosis
2. Unit not	a. Anti-short cycle	a. Reset AC

starting , but temperature rising high		
3. Temperature fluctuating	a. Air probe	a. When using an air probe, the wine bottle temperature is mainly controlled by the average air temperature. If the set-point is 55°F with the differential 4F, the cooling unit turns on at 59°F of air temperature (It may be higher than 59°F if it is in anti-short cycle or defrost cycle) and turns off at 55°F of air temperature. The average air temperature is 57°F, and then the wine temperature is around 57+/- 0.5°F. The air is light enough to change so quickly that it maintains relatively constant average temperature that would prevent wine bottle temperature from fluctuating.
4. Temperature high, unit stopping and starting normally	a. Temperature setting high	a. Lower the setting
5. Temperature high, unit stopping and starting with short running time	a. Air probe touching the evaporator coil, displaying temperature ok b. Short circuit of air flow between cold-air supply and cellar-air return, displaying temperature ok c. Failed controller and probe	a. Move the air probe away from the evaporator b. Deflect the supply air down c. Call service for diagnosis
6. Temperature high or not cooling and running continually	a. Improper cellar insulation & seal b. Cellar too large c. Ambient temperature too high d. Exhaust restricted e. Malfunctioning fans f. Evaporator or condenser airflow g. Dirty Condenser h. Iced evaporator i. Refrigeration system restriction j. Refrigerant leak k. Undercharge or overcharge l. Failed components	a. Check insulation, gasket and door opening, power cord grommet b. Check for excessive size c. Check installation location d. Leave minimum 3 feet clearance for the hot air exhaust side and leave minimum 1 foot clearance for the fresh air intake side e. Check for both evaporator and condenser fans f. Check for air restrictions, air short-circulation, grille directions g. Clean condenser h. Defrost and reset temperature i. Call service j. Call service k. Call service l. Check compressor windings, start relay and overload protector
7. Unit running	a. Improper cellar insulation & seal	a. Check insulation, gasket and door

too long	b. Cellar too large c. Ambient temperature higher > 90°F d. Exhaust restricted e. Dirty Condenser f. Improper condenser air flow	opening, power cord grommet b. Check for excessive size c. Check for installation location d. Leave minimum 3 feet clearance for the hot air exhaust side and leave minimum 1 foot clearance for the fresh air intake side e. Clean condenser f. Check for fan and air short circulation
8. Fan motor running but compressor not running	a. Post-compressor fan running mode b. Incorrect or loose wirings c. Failed components d. Liquid refrigerant in the compressor	a. Check fan running time FON b. Check all wirings and connections c. Check start relay, start capacitor, overload protector, compressor. d. Call service.
9. Compressor running but fan not running	a. Fan blade stuck b. Incorrect or loose wirings c. Failed motors	a. Check for proper clearance b. Check all wirings c. Call service
10.Temperature high, compressor stopping and starting but very short running time	a. Failed components b. Improper condenser airflow c. Dirty condenser d. Overcharge of refrigerant e. Discharge or suction pressure too high	a. Check compressor windings, start relay and overload protector. b. Check for condenser fan c. Clean condenser d. Call service for removing refrigerant e. Call service for information
11.Fan running too long	a. Post-compressor fan running mode for humidity modulation	a. Reset FON
12.Temperature low	a. Low temperature setting b. Low ambient temperature c. Air probe fault d. Temperature controller fault	a. Raise the setting b. Move to another location c. Change a new one d. Change a new one
13.Evaporator freezing up	a. Evaporator air flow restriction b. Low temperature setting c. Low ambient temperature d. Defective controller or probe e. Not stopping due to air leak, high ambient temperature, condenser air flow restriction or pull-down cooling f. Initially working then stopping, moisture in the system g. Refrigerant low or leaking h. Capillary tube or expansion valve blockage	a. Check for fans and air flow b. Check for set-point c. Change defrost cycle d. Check for controller and probe e. Check for seal, door opening, ambient temperature and condenser air flow f. Call service g. Call service h. Call service
14.Water leak	a. Air leak in the wine cellar causing excessive condensate b. High humidity causing excessive	a. Check for air leak b. Use drain line

	condensate c. Evaporator air flow restriction d. Water passages restricted e. Drip tray leak (No water overflow but water leak)	 c. Check supply air flow or air TD d. Clean the drip tray e. Seal the leak using silicone sealant
15. Excessive condensate in wine cellar	a. Air leak in the wine cellar causing excessive condensate b. High humidity causing excessive condensate c. Water passages restricted	a. Check for any air leak b. Use drain line c. Clean the drip tray
16. Circuit tripping	a. Incorrect fuse or breaker b. Incorrect wirings c. Failed components	a. Check for proper fuse or breaker b. Check for wirings and connections c. Call service
17. Noisy operation	a. Mounting area not firm b. Loose parts c. Compressor overloaded due to high ambient temperatures or airflow restriction d. Defective components	a. Add support to improve installation b. Check fan blades, bearings, washers, tubing contact and loose screws. c. Check for airflow d. Call service for checking internal loose, inadequate lubrication and incorrect wirings

4. Customer Support

If you still have problems, please contact us at:

Vinotemp International
17631 South Susana Road
Rancho Dominguez, CA 90221
Tel: (310) 886-3332
Fax: (310) 886-3310
Email: info@vinotemp.com

5. Warranty

I. Limited Warranty

VINOTEMP warrants its products to be free from defects due to workmanship or materials under normal use and service, for twelve months after the initial sale. If the product is defective due to workmanship or materials, is removed within twelve months of the initial sale and is returned to VINOTEMP, in the original shipping carton, shipping prepaid, VINOTEMP will at its option, repair or replace the product free of charge. Additionally VINOTEMP warrants all parts to be free from defects for a period of sixty months after initial sale.

This warranty constitutes the entire warranty of the VINOTEMP with respect to its products and is in lieu of all other warranties, express or implied, including any of fitness for a particular purpose. In no event shall VINOTEMP be responsible for any consequential damages what is so ever. Any modification or unauthorized repair of VINOTEMP products shall void this warranty.

Service under Warranty

This service is provided to customers within the continental UNITED STATES only. VINOTEMP cooling units are warranted to produce the stated number of BTU/H. While every effort has been made to provide accurate guidelines, VINOTEMP can not warranty its units to cool a particular enclosure.

In case of failure, VINOTEMP cooling units must be repaired by the factory or its authorized agent. Repairs or modifications made by anyone else will void the warranty.

Shall a VINOTEMP cooling unit fail, contact the dealer for instructions, do not return the unit to the factory without authorization from VINOTEMP. If the unit requires repair, re-pack it in the original shipping carton and return it to the factory, shipping prepaid. VINOTEMP will not accept COD shipments. If the unit is determined to be faulty and is within the twelve month warranty period VINOTEMP will, at its discretion, repair or replace the unit and return it free of charge to the original retail customer. If the unit is found to be in good working order, or beyond the initial twelve month period, it will be returned freight collect.

II. Limitation of Implied Warranty

VINOTEMP'S SOLE LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO, AT OUR OPTION, REPAIRING OR REPLACING OF UNIT.

VINOTEMP SHALL NOT BE LIABLE FOR:
DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE UNIT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE UNIT, LOSS OF TIME OR COMMERCIAL LOSS, ANY OUTER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.

THIS WARRANTY IS EXCLUSIBE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR INPLIED, INCLUDING BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

While great effort has been made to provide accurate guidelines VINOTEMP cannot warrant its units to properly cool a particular enclosure. Customers are cautioned that enclosure construction, unit location and many other factors can affect the operation and performance of the unit. There for suitability of the unit for a specific enclosure or application must be determined by the customer and cannot be warranted by VINOTEMP.